

Notice of Allowability

Application No.

09/831,093

Examiner

Russell Frejd

Applicant(s)

MYR, DAVID

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's filing on 20-July-2001.
2. ☒ The allowed claim(s) is/are 1-27.
3. ☒ The drawings filed on 20 July 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 8.24.2001
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

RUSSELL FREJD
RUSSELL FREJD
PRIMARY EXAMINER

In re Application of: Myr

Allowance of Application # 09/831,093

1. The following communication is in response to applicant's Preliminary Amendment, received 19-June-2001, which amended claims 3-5, 7-13, 16-18, and 20-27. Claims 1-27 are currently in the application.

Reasons for Allowance

2. The following is an Examiner's Statement of Reasons for the indication of allowable subject matter. The instant application is directed to a non-obvious improvement over the information described in the related prior art, the most relevant prior art of record being the article authored by ASKEW et al., entitled *Computer Aided Generation of Earthwork Activities in Project Planning*, Developments in Computation Techniques for Civil Engineering, August 1995, pages 17-23.

The improvement comprises a method and system for designing transportation routes by taking into account a profile of the proposed route, including the constraints of allowable grades, 3-D coordinates of sampled land height points, and cost estimates of the respective land-cut and land-fill operations. The method then computes a height profile of the proposed route which meets the prior constraints, and adjusts the cut and fill operations to arrive at a minimum cost. This is accomplished by replacing all non-linear constraints with equivalent linear constraints, and thereby rendering the height profile through the use of standard linear programming tools. This patentable distinction is included in each of the independent claims, nos. 1 and 14.

The art of record, either individually or in combination, fails to teach, suggest, or render obvious the useful, concrete and tangible <design of transportation routes by algorithmically

In re Application of: Myr

replacing all non-linear constraints with equivalent linear constraints> having the corresponding structure which is disclosed in the specification and equivalents thereof at least at page 4, line 2 through page 21, line 17, and Figures 1-5. In view of the foregoing, the claims of the present application are found to be patentable over the prior art.

Response Guidelines

3. Any comments considered necessary by applicant **MUST** be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should clearly be labeled "Comments on Statement of Reasons for Allowance".

4. Any response to the Examiner in regard to this allowance should be

directed to: Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, or the examiner's supervisor, Jean Homere, telephone number (571) 272-3780.

mailed to: Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: (703) 872-9306

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA., 22202.

Date: 8-December-2004



**RUSSELL FREJD
PRIMARY EXAMINER**